CLAIMS

What is claimed is:

1. A system for expanding the diameter of a tubular disposed within a wellbore, comprising:

an expandable tubular having an interior surface; and

an expansion tool configured to fit within a perimeter defined by the interior surface, the expansion tool having a selectively expandable portion, wherein the selectively expandable portion imparts a radial expansion force against the interior surface to drive the expandable tubular to an expanded state.

2. The system as recited in claim 1, wherein the selectively expandable portion comprises a plurality of pistons actuatable in a radial direction.

3. The system as recited in claim 2, wherein the pistons actuate under the influence of a fluid.

4. The system as recited in claim 2, wherein the pistons actuate under the influence of a biasing member.

5. The system as recited in claim 4, wherein the pistons comprise subsystem members positioned to rotatably engage the biasing member.

6. The system as recited in claim 4, wherein the biasing member travels upwardly through the wellbore.

7. The system as recited in claim 6, further comprising a wireline adapted to engage the biasing member, the wireline being insertable into the wellbore under influence of a fluid.

8. The system as recited in claim 7, wherein the wireline comprises a plurality of flanges adapted to receive the fluid.

9. The system as recited in claim 1, wherein the expansion tool comprises an inflatable member disposed along a central mandrel.

10. The system as recited in claim 9, wherein the inflatable member comprises a plurality of inflatable members and inflates via a liquid.

11. The system as recited in claim 1, wherein the expansion tool comprises a compressible elastomer.

12. The system as recited in claim 1, wherein the expansion tool comprises a fluid-filled volume having a first shape, the fluid-filled volume being configurable via externally applied forces to a second shape such that the second shape provides the radial expansion force.

13. The system as recited in claim 1, wherein the expansion tool comprises a compressible spring, the spring being adapted to radially expand during transition from a compressed configuration to an expended configuration.

14. The system as recited in claim 1, wherein the expansion tool comprises a roller.

15. The system as recited in claim 14, further comprising a central shaft, the roller being disposed co-axially about the central shaft, wherein the roller comprises an offset portion.

16. The system as recited in claim 14, wherein the roller comprises elliptical members having an interior engagement surface; and

further comprising an axle, wherein the interior engagement surface of the roller travels along a circumference of the axle.

17. The system as recited in claim 1, wherein the expansion portion comprises a plurality of expandable discs.

18. The system as recited in claim 17, further comprising a removable sleeve disposed about the expandable discs, wherein the sleeve retains the expandable discs in a compressed configuration.

19. The system as recited in claim 1, wherein the expansion tool comprises a first rotating member coupled to a second rotating member, wherein rotation of the first member about the second member provides the radial expansion force.

20. The system as recited in claim 1, wherein the expansion tool comprises a plurality of block members, wherein at least one of the plurality of block members is adapted to travel radially outward in response to an axial compressive force.

21. An expansion system to expand a tubular disposed in a wellbore, comprising:

an expansion mechanism sized for deployment within the interior of the tubular, the expansion mechanism comprising a radially expandable portion, the radially expandable portion being configured to enable selective expansion of the tubular to an expanded state by imparting a force directed radially against the tubular.

22. The system as recited in claim 21, wherein the expansion mechanism comprises at least one piston actuatable in a radial direction.

23. The system as recited in claim 21, wherein the expansion mechanism comprises an inflatable member disposed along a supporting mandrel.

24. The system as recited in claim 21, wherein the expansion mechanism comprises an expansion plate biased in a radially outward direction with respect to an axis of the wellbore.

25. The system as recited in claim 21, wherein the expansion mechanism is selectively actuatable from a compressed configuration to an expanded configuration under externally applied forces.

26. The system as recited in claim 21, wherein the expansion mechanism comprises a rotatable member.

27. An expansion device for expanding a tubular within a wellbore, comprising a mandrel having a stepped profile oriented to engage an interior surface of the tubular.

28. The expansion device as recited in claim 27, wherein the stepped profile is created by a plurality of stages having progressively increasing diameters.

29. The expansion device as recited in claim 27, wherein the stepped profile extends along a portion of the mandrel in an axial direction.

30. A method for expanding a tubular having contracted and expanded states, comprising:

disposing a tubular in a contracted state within a wellbore;

disposing an expansion tool at least partially within an interior region of the contracted tubular; and

activating an expansion portion of the expansion tool such that the expansion portion imparts a radial force on the tubular sufficient to transition the tubular to a radially expanded configuration.

31. The method as recited in claim 30, wherein activating comprises inflating a plurality of tubes.

32. The method as recited in claim 30, wherein activating comprises rotating the expansion member.

33. The method as recited in claim 30, wherein activating comprises radially biasing the expansion portion with a piston.

34. The method as recited in claim 30, wherein activating comprises removing a sleeve positioned to restrict expansion of the expansion portion.

35. The method as recited in claim 30, wherein activating comprises compressing the expansion tool via an axial compressive force.

36. The method as recited in claim 30, further comprising biasing the expansion portion toward a radially expanded position; and restricting outward radial movement of the expansion portion until activating the expansion portion.